



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,167	03/10/2006	Mohammad Jaber Borran	088245-0799	8220

23524 7590 12/31/2009
FOLEY & LARDNER LLP
150 EAST GILMAN STREET
P.O. BOX 1497
MADISON, WI 53701-1497

EXAMINER

BURD, KEVIN MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

2611

MAIL DATE	DELIVERY MODE
-----------	---------------

12/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Arguments

Applicant's arguments filed 12/15/2009 have been fully considered but they are not persuasive.

Applicants submit the previous finality of the office action is improper. The examiner disagrees. First, denying the previous after final amendment was not improper. Though similar language was present in a dependent claim, the amended added new features to the independent claim. The amendment created a selection based on two items, a channel state information and a current SNR. This was not present in the previous claims 26 and 27. Claim 27 was more specific in reciting what the specific channel information was, the SNR. The after final amendment required an SNR and an additional channel state information item. This was pointed out in the previous advisory action. Second, applicant states the amendment filed with the RCE should have required further consideration and/or search. The examiner disagrees. No further consideration and/or search would have been required since the previous reference disclosed the recited limitations. If the amendment had been presented after final, an advisory action would have been mailed indicating this. Third, the examiner disagrees with applicant that the examiner has never considered the claim element. The claim element and the examiner's interpretation of the pending claims and the prior art is stated in the previous final office action.

Applicants state they fail to follow the examiner's logic in the previous final office action's rejection of the pending claims. SNR is an estimation of the quality of a channel

Art Unit: 2611

used in communication. The level of the signal is determined as is the level of the noise present in the channel to determine the signal-to-noise ratio (SNR). When a noise level of zero is present, the channel is equal to an ideal channel. When a noise level is greater than zero, the present channel is not ideal and a channel estimation error is present. Channel estimation error is the difference between the ideal or expected channel and the present channel. The difference or error is determined and represents the noise/interference/distortion present in the channel. The distortion level of the channel can be represented in a number of ways such as SNR, BER, number of errors, etc, to achieve a measure or estimation of a channel. Therefore, the representation of the channel by using the SNR will represent those channel estimation errors. The previous rejection of the claims is maintained.

Applicants state claims 27, 36 and 52 would not narrow claims 26, 35 and 51. The examiner believes the limitation of "a signal-to-noise ratio" does narrow the limitation of "a channel estimation error". The SNR limitation narrows the broader limitation of a channel estimation error. As stated above, the SNR is one of many possible values that represent the measure or estimation of the channel and the channels corresponding channel quality.

Applicants state the claims rejected under 35 USC 103 do not disclose the channel estimation error limitation disclosed above. However, the combination of references do disclose the recited limitations for the reasons stated above and in the previous final office action.

Art Unit: 2611

The double patenting rejection is maintained and the claims are rejected as stated in the previous office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/
Primary Examiner, Art Unit 2611
12/28/2009

Application/Control Number: 10/523,167
Art Unit: 2611

Page 5